



Shannon Donnelly  
Senior Environmental Coordinator  
P.O. Box 100360 NSK 61  
Anchorage, AK 99510  
(907) 659-7242 (phone)  
(907) 659-7712 (fax)  
Shannon.Donnelly@conocophillips.com

May 5, 2009

Roger Fernandez  
Natural Gas STAR Program  
U.S. EPA (6207 J)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Subject: ConocoPhillips Alaska, Inc. and ConocoPhillips Natural Gas Company  
Annual Report 2008

Dear Mr. Fernandez:

I am pleased to submit the Annual Report for 2008 on behalf of ConocoPhillips Alaska, Inc. and ConocoPhillips Natural Gas Company ("CPAI"). We continue to make steady progress toward our 2007 Implementation Plan goals.

Please contact me with any questions or comments. Thank you very much for your support of our efforts.

Sincerely,

A handwritten signature in black ink, appearing to read "Shannon", followed by a long, sweeping horizontal line that extends to the right.

Shannon Donnelly  
Sr. Environmental Coordinator

Enclosure

Cc: Allison Berkowitz

# Annual Report 2008



## Production Sector

### Company Information

Company Name: ConocoPhillips Alaska, Inc. and  
ConocoPhillips Natural Gas Company  
(CPAI)

Gas STAR Contact: Shannon Donnelly

Title: Environmental Coordinator

Address: P.O. Box 100360  
NSK-61

City, State, Zip Code: Anchorage, AK 99510

Telephone: (907) 659-7242

Fax: (907) 659-7712

E-mail: Shannon.Donnelly@conocophillips.com

### Annual Report Summary

- X BMP 1: Identify and replace high-bleed pneumatic devices
- NA BMP 2: Install flash tank separators on glycol dehydrators
- X Partner Reported Opportunities (*please specify*):

Reduced emission completion

Period covered by report: From: 1/1/08 To: 12/31/08

#### Partner Signature Required:

I hereby certify the accuracy of the data contained in this report.

May 5, 2009

Date

- Because the implementation of some technologies reduces emissions for multiple years, Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. Gas STAR designates the maximum length of time that these reductions may accrue as "sunset dates." The Appendix lists these sunset dates. Companies can report the corresponding methane emission reductions each year up to the allowable sunset date. Or, companies may wish to report reductions only once for the implementation year, and have EPA automatically apply the sunset date and count those emissions for the allowable number of years.
- In addition to reporting methane emissions reductions, you are welcome to include other information about your company's participation in Natural Gas STAR in the "Additional Program Accomplishments" section of this form. The Natural Gas STAR Program will use any information entered in this section to recognize the efforts and accomplishments of outstanding partners.

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## Production Sector Annual Report

OMB Control No. 2060-0328  
Expires 07/31/2011

**BMP 1 Comments:** *Please use the back of the page for additional space if needed.* Under the CPAI Implementation Plan, the related goal is to conduct an inventory of high bleed devices at the Beluga River Unit and determine appropriate follow up in terms of economic methane emission controls based on the outcome of the survey. CPAI exceeded this goal. The physical inventory was completed in June of 2008. The results have been compiled, and now serve as a reference for reduction opportunities and tracking of replacement activities. CPAI has committed that future new well installations (including workovers) will be equipped with electric well controls and level controllers. As practicable, existing pneumatic controls will be replaced with electric controls.



## Production Sector Annual Report

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### BMP 2: Install Flash Tank Separators on Glycol Dehydrators

#### Current Year Activities

A. Facility/location identifier information: NA

**B. Facility summary:**

Number of flash tank separators installed: \_\_\_\_\_ separators

Percent of dehydrators in system equipped with flash tank separators: \_\_\_\_\_ %

**C. Cost summary:**

Estimated cost per flash tank separator installation (including equipment and labor): \$ \_\_\_\_\_ /installation

D. Methane emissions reduction: \_\_\_\_\_ Mcf

E. Are these emissions reductions a one-year reduction or a multi-year reduction? ☐ One-year ☐ Multi-year

**If Multi-year:**

☐ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration (BMP 2 has a sunset period of 10 years).

☐ Partner will report this activity annually up to allowed sunset date.

**Please identify the basis for the emissions reduction estimate, using the space provided to show any calculations**

☐ Standard calculation

*Methane emissions reduction per flash tank installation = [TEG circulation rate (in gal/hr) x Methane entrainment rate (in scf/gal)\* x hours of operation (in hrs/yr) x 0.90] / 1,000*

*\*If methane entrainment rate is not known, use a default value of 3 scf/gal for energy exchange pumps or 1 scf/gal for electric pumps*

*Please specify your data source:*

- ☐ Field measurement  
☐ Manufacturer specifications

☐ Calculation using default

*Methane emissions reduction = [Average gas throughput (in MMcf/yr) x 170 scf/MMcf x 0.90] / 1,000*

☐ Other (please specify):

*For assistance quantifying the methane emission reductions achieved by BMP 2, please refer to the Gas STAR Emission Reduction Quantification Reference Guide, available on the Gas STAR Web site at: [epa.gov/gasstar/documents/xls/quantifying\\_ngo\\_methane\\_reductions.xls](http://epa.gov/gasstar/documents/xls/quantifying_ngo_methane_reductions.xls)*

F. Total value of gas saved: \$ \_\_\_\_\_

*Total value of gas saved= Methane emissions reduction (in Mcf) x Gas value (in \$/Mcf) [If not known, use default of \$7.00/Mcf]*

G. How many flash tank separators do you plan to install next year? \_\_\_\_\_ flash tank separators

#### Previous Years' Activities

Use the table below to report any past activities implemented, but not previously reported to the Natural Gas STAR Program

Year	# Flash Tank Separators Installed	Total Cost of Installation (incl. equipment and labor) (\$)	Estimated Reductions (Mcf/yr)	Value of Gas Saved (\$)

**BMP 2 Comments:** Please use the back of the page for additional space if needed.



## Production Sector Annual Report

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### Partner Reported Opportunities (PROs) (For more details on PROs, visit [epa.gov/gasstar/tools/recommended.html](http://epa.gov/gasstar/tools/recommended.html))

#### Current Year Activities

**A. Facility/location identifier information:** Kuparuk River Unit- Reduced Emission Completion

**B. Activity description:** Please provide a separate PRO reporting form for each activity reported. If reporting a DI&M activity, please use a separate page for each location/facility surveyed.

Please specify the technology or practice that was implemented (choose from the list in the appendix or describe your own):

Reduced Emission Completion Well 3K-102

Please describe how your company implemented this activity:

CPAI voluntarily utilized a portable vapor recovery system on Well 3K-102 to minimize fugitive emissions resulting from active flowback (clean up) of this new oil producing well.

**C. Level of Implementation** (check one):

- ☐ Number of units installed: \_\_\_\_\_ units  
☒ Frequency of practice: 1 times/year

**D. Are emissions reductions a one-year reduction or a multi-year reduction?** ☒ One-year ☐ Multi-year

**If Multi-year:**

☐ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration\*.

☐ Partner will report this activity annually up to allowed sunset date.

**E. Methane emissions reduction:** 1300 Mcf

**F. Cost summary:** Estimated cost of implementing this practice/activity (including equipment and labor): \$ 10,000  
This was a low cost opportunity as the vapor recovery system was available on standby in the field. Future applications would be expected to be more costly if dedicated equipment were required. The cost estimate represents the incremental cost associated with emission control, not the full cost of the flowback operation.

**Please identify the basis for the emissions reduction estimate, using the space provided to show any calculations**

- ☐ Actual field measurement ☐ Other (please specify):  
☒ Calculation using manufacturer specifications/other source (engineering calculation)

For assistance quantifying the methane emission reductions achieved by a particular technology or practice, please refer to the Gas STAR Emission Reduction Quantification Reference Guide, available on the Gas STAR Web site at:  
[epa.gov/gasstar/documents/xls/quantifying\\_ngs\\_methane\\_reductions.xls](http://epa.gov/gasstar/documents/xls/quantifying_ngs_methane_reductions.xls).

**G. Total value of gas saved:** \$ 9,100

Total value of gas saved = Methane emissions reduction (in Mcf)  
x Gas value (in \$/Mcf) [If not known, use default of \$7.00/Mcf]

**H. To what extent do you expect to implement this practice next year?**

TBD- CPAI utilizes reduced emission completions in a number of applications each year. The focus for CPAI Natural Gas STAR annual reporting is those events where emission reductions exceed standard practices.

#### Previous Years' Activities

Use the table below to report any past implementation of this PRO, but not previously reported to Natural Gas STAR

Year	Frequency of Practice/Activity or # of Installations	Total Cost of Practice/Activity (incl. equipment and labor) (\$)	Estimated Reductions (Mcf/yr)	Value of Gas Saved (\$)



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**PRO Comments:** *Please use the back of the page for additional space if needed.*

\* Because the implementation of some technologies reduces emissions for multiple years, Gas STAR allows certain activities to count towards a company's emission reductions beyond the initial year of implementation. Gas STAR designates the maximum length of time that these reductions may accrue as "sunset dates." The Appendix lists these sunset dates. Companies can report the corresponding methane emission reductions each year up to the allowable sunset date. Or, companies may wish to report reductions only once for the implementation year, and have EPA automatically apply the sunset date and count those emissions for the allowable number of years.



## Production Sector Annual Report

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### Additional Program Accomplishments

The Natural Gas STAR Program will use any information entered here to recognize the efforts and achievements of outstanding partners.

Please include any additional information you would like to share about your company's participation in Natural Gas STAR. Examples may include:

- Activities to strengthen your program (e.g., training/education, innovative technologies or activities, pilot projects, employee incentive programs).
- Efforts to communicate your participation and successes (e.g., internal newsletters, press releases, company Web site).
- Participation in Natural Gas STAR program activities (e.g., contributions to case studies, presentation at annual workshop).

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#### Additional Accomplishments:

- CPAI has continued to make steady progress toward all implementation plan goals.
- As documented above, Goal 1 has been completed and is serving as a tool in reduction planning.
- The engineering evaluation of vapor recovery for the CPF1 produced water storage tanks is underway.
- In September 2008, CPAI satisfied the third implementation plan goal by conducting a pilot leak detection survey using hand-held FLIR camera technology with the assistance of COP Canada. The results of the survey indicate that CPAI fugitive losses are considerably less than typical of operations elsewhere. In May 2008, CPAI Aviation hosted field trials of an aircraft mounted Gas Find IR unit in support of this important technology, in coordination with FLIR Technologies, Inc.